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# Nomenclatural Changes in *Epipactis* (Orchidaceae) from China

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**ABSTRACT.** New rank is proposed for *Epipactis humilior* (Tang & Wang) S. C. Chen & G. Zhu and *E. helleborine* (L.) Crantz var. *tangutica* (Schlechter) S. C. Chen & G. Zhu. *Epipactis humilior* was formerly treated as a variety of *E. mairei* Schlechter, but distinctly differs from the latter by having a slender, creeping, elongated rhizome, ovate-lanceolate or lanceolate leaves 2–3 cm wide and scarcely or slightly scabrous adaxially. *Epipactis helleborine* var. *tangutica* is characterized by possessing on the epichile two much larger fleshy calli rather than small semiorbicular warty lamellae seen in *E. helleborine*.

**Key words:** China, *Epipactis*, Orchidaceae.

*Epipactis* Zinn is an orchid genus of some 20 species distributed mainly in Europe and eastern Asia with a few species extending to North America, Indochina, and Thailand. In China eight species and one variety were recognized recently (Luo, 1999), of which some nomenclatural problems have been discussed (Chen & Luo, 2002a, 2002b) after a recent visit of the senior author to European herbaria. This is another note, proposing new ranks for two taxa: *Epipactis humilior* and *E. helleborine* var. *tangutica*.

***Epipactis humilior*** (Tang & Wang) S. C. Chen & G. Zhu, stat. nov. Basionym: *Epipactis mairei* Schlechter var. *humilior* Tang & Wang, Acta Phytotax. Sin. 1: 67. 1951. TYPE: China. Sikang [Sichuan]: without precise locality, S. M. Liu 1107 (holotype, PE).

This is a rare taxon that was earlier treated as a variety of *Epipactis mairei* in volume 17 of the *Flora Reipublicae Popularis Sinicae* (1999). *Epipactis humilior* is similar in floral structure to *E. mairei*, but its flowers are slightly smaller, with lateral sepals 13–17 mm long (vs. 15–20 mm long in *E. mairei*). Further, *Epipactis mairei* is a widespread species characterized by having a rather thick and

short rhizome and usually elliptic to elliptic-ovate leaves up to 3–8 cm wide and strongly scabrous adaxially. *Epipactis humilior* is quite distinctive by possessing a slender, creeping, elongated rhizome and ovate-lanceolate to lanceolate leaves 2–3 cm wide and scarcely or slightly scabrous adaxially. These features are of significance in the interspecific classification of *Epipactis* (Chen & Luo, 2002a). For example, *E. helleborine*, *E. papillosa* Franchet & Savatier, and *E. mairei* are never found possessing slender creeping rhizomes, while *E. royleana* Lindley, *E. gigantea* Douglas ex Hooker, and *E. veratrifolia* Boissier & Hohenacker always have slender, creeping, elongated rhizomes.

The vegetative characters of *Epipactis humilior* are similar to those of *E. veratrifolia* Boissier & Hohenacker (syn. *E. comsimilis* Wallich ex Hooker f., 1890, non D. Don, 1825, see Chen & Luo, 2000b), but the floral structure is quite different. The hypochile of the lip in *E. veratrifolia* is broadly grooved, without side lobes, conspicuously narrower than the epichile, and lacking lamellae adaxially, whereas in *E. humilior* it has erect side lobes, conspicuously broader than the epichile, and with 3 crisped lamellae on the disk. It therefore seems more reasonable to treat it as a separate species than a variety.

***Epipactis helleborine*** (L.) Crantz var. ***tangutica*** (Schlechter) S. C. Chen & G. Zhu, stat. nov. Basionym: *Epipactis tangutica* Schlechter, Feddes Repert. Spec. Nov. Regni Veg. Beih. 4: 149. 1919. TYPE: China. Kansu [Gansu]: Tangut, N. M. Przewalski s.n. (syntypes, B [presumed destroyed], K, LE not seen, P).

*Epipactis tangutica* was reduced to a synonym of *E. helleborine* in *FRPS* vol. 17 (Luo, 1999), though it was recognized by Tang and Wang as a distinct species in their manuscript (unpublished, preparing for the orchid flora of China). A close examination of the type specimens at K and P revealed

that *E. tangutica* is distinguishable by its epichile on which two basal appendages are large fleshy calli rather than two smaller semiorbicular warty lamellae as seen in *E. helleborine*. Considering that the appendages on the epichile of the floral lip are usually variable in some species of this genus, and phytogeographically this entity is sympatric with *E. helleborine*, it seems reasonable to suggest that *E. tangutica* be recognized at the varietal rank within *E. helleborine*.

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